

RAW SEQUENCE LISTING
PATENT APPLICATIONⁿ US/08/487,032DATE: 02/23/96
TIME: 11:34:47

INPUT SET: S8924.raw

This Raw Listing contains the General
Information Section and those Sequences
containing ERRORS.

SEQUENCE LISTING

1
2
3 (1) General Information:
4
5 (i) APPLICANT: DOUGLAS SMITH
6
7 (ii) TITLE OF INVENTION:NUCLEIC ACID AND AMINO ACID SEQUENCES
8 RELATING TO HELICOBACTER PYLORI FOR
9 DIAGNOSTICS AND THERAPEUTICS
10
11 (iii) NUMBER OF SEQUENCES: 880
12
13 (iv) CORRESPONDENCE ADDRESS:
14 (A) ADDRESSEE: LAHIVE & COCKFIELD
15 (B) STREET: 60 State Street, Suite 510
16 (C) CITY: Boston
17 (D) STATE: Massachusetts
18 (E) COUNTRY: USA
19 (F) ZIP: 02109-1875
20
21 (v) COMPUTER READABLE FORM:
22 (A) MEDIUM TYPE: Floppy disk
23 (B) COMPUTER: IBM PC compatible
24 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
25 (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
26
27 (vi) CURRENT APPLICATION DATA:
28 (A) APPLICATION NUMBER: US 08/487,032
29 (B) FILING DATE: 07-JUNE-1995
30
31 (viii) ATTORNEY/AGENT INFORMATION:
32 (A) NAME: Mandragouras, Amy E.
33 (B) REGISTRATION NUMBER: 36,207
34 (C) REFERENCE/DOCKET NUMBER: GTN-001
35
36 (ix) TELECOMMUNICATION INFORMATION:
37 (A) TELEPHONE: (617)227-7400
38 (B) TELEFAX: (617)227-5941
39

See
notes
throughout
→

ERRORED SEQUENCES FOLLOW:

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/487,032DATE: 02/23/96
TIME: 11:34:52

INPUT SET: S8924.raw

5923 (2) INFORMATION FOR SEQ ID NO:149:
5924
5925 (i) SEQUENCE CHARACTERISTICS:
5926 (A) LENGTH: 1017 base pairs
5927 (B) TYPE: nucleic acid
5928 (C) STRANDEDNESS: double
5929 (D) TOPOLOGY: circular
5930
5931 (ii) MOLECULE TYPE: DNA (genomic)
5932
5933 (iii) HYPOTHETICAL: NO
5934
5935 (iv) ANTI-SENSE: NO
5936
5937 (vi) ORIGINAL SOURCE:
5938 (A) ORGANISM: Helicobacter pylori
5939
5940
5941

-->

(xi) SEQUENCE DESCRIPTION: PHOSPHOMANNO:UTASE:

5942	ATGATCACTG GCTCTCACAA CCCCAAAGAA TACAACGGCT TTAAAATCAC GCTCAATCAA	60
5943		
5944	AACCCGTTTT ATGGCAAGGA CATTCAGGCT TTAAAAACA CGCTTTTAAA CGCAAAGCAT	120
5945		
5946	GAAATAAAGC CCCTAAAAGA AACGCCAGAG AAAGTCAATG CCCTAGAAGC GTATCATCGC	180
5947		
5948	TATTTGATCA AGGATTTTAA GCATTTAAAA AATCTTAAAT ACAAATCGC CCTGGATTTT	240
5949		
5950	GGTAATGGCG TGGGGGCGTT AGGATTAGAG CCGATTTTAA AGGCTTTAAA CATTGATTTT	300
5951		
5952	AGCAGCCTTT ATAGCGATCC TGATGGGGAT TTTCTAACC ACCACCCAGA CCCTAGCGAA	360
5953		
5954	GCGAAAACT TAAAAGACTT AGAAAAACAC ATGCGAGAAA ACGCTATTTT AATAGGCTTT	420
5955		
5956	GCTTTTGATG GCGATGCGGA TAGGATTGCG ATGCTAAGCT CTCATCATAT CTATGCGGGC	480
5957		
5958	GATGAATTAG CGATTTTATT CGCTAAACGC TTGCATGCTC AAGGCATCAC CCCTTTTGTG	540
5959		
5960	ATCGGCGAAG TCAAATGCTC TCAAGTGATG TATAACGCAA TCAATACTTT TGGTAAGACG	600
5961		
5962	CTCATGTATA AAACCGGGCA TAGCAATTTA AAAATCAAGC TCAAAGAAAC TAATGCGCAT	660
5963		
5964	TTTGCGGCTG AAATGAGCGG GCATATCTTT TTAAAGAAG GCTATTTTGG CTATGATGAC	720
5965		
5966	GCTCTTTACG CATGTTTAAG GGCTTTGGAG TTATTGCTTG AACAAAGTCC AAGCGACTTG	780
5967		
5968	GAAAACACCA TAAAAACCT CCCCTATTCC TACACCACGC CTGAAGAAAA AATCGCCGTG	840
5969		
5970	AGCGAAGAAG AAAAATTTGA AATCATTCGC AACTTACAAG AAGCGCTTAA AAACCCGCCA	900
5971		
5972	AGCCATTTCC CTACAATCAA AGAAATCATC AGCATTGATG GCGTGAGAGT GGTTTTTGAA	960
5973		
5974		
5975		

insert
SEQ ID NO:149:

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/487,032DATE: 02/23/96
TIME: 11:34:56

INPUT SET: S8924.raw

5976 CATGGCTTTG GGCTTATTCTG CGCAAGCAAC ACCCACCCCC TATTTAGTCA GCCGCTT 1017
5977
5978

(2) INFORMATION FOR SEQ ID NO:179:

7254

(i) SEQUENCE CHARACTERISTICS:

--> 7256 (A) LENGTH: 264 base pairs
7257 (B) TYPE: nucleic acid
7258 (C) STRANDEDNESS: double
7259 (D) TOPOLOGY: circular
7260

(ii) MOLECULE TYPE: DNA (genomic)

7262

(iii) HYPOTHETICAL: NO

7263

(iv) ANTI-SENSE: NO

7266

(vi) ORIGINAL SOURCE:

(A) ORGANISM: Helicobacter pylori

7269

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:179:

7271

7272 GTGGGTGTCT TATCCCTCAA AATAGAGGCA ATTTCTAATT TTTATGGGTT ATGCGTTTTA 60

7273

7274 GGGGTGTTGT TAGCATGTTT TTATCTTTTA GACGCTTATT ATCTCATGCA AGAAAGGCTG 120

7275

7276 TTTAGGGAGC AATACCAATG GCTAATAAAA AACCGACTTA AAACCGATGA AAGGCTGTTT 180

7277

7278 GAAGTCTTCC CTATTCATCA AACTTGCCAA TCAACGCAAT TCTTATCGCC ATGCGTTCGT 240

7279

7280 TTAGTCTTTT CCCCTATTGG GCGT

7281 H A P T (D ! E \$ J AqI1 b dvQL _ \$%(, , La j (Ia

--> 7282 (C) STRANDEDNESS: double

--> 7283 (D) TOPOLOGY: circular

7284

(ii) MOLECULE TYPE: DNA (genomic)

7286

(iii) HYPOTHETICAL: NO

7287

(iv) ANTI-SENSE: NO

7289

--> 7291 (vi) O Nã0TAAAGCGGTC 240

7292

7293 TTTTTCACCC ACCATACTTT AAAGGCTTCG TTTGAGCCGA CTAACCACAT CAATTATAGA 300

7294

7295 GGGCATGACT ATGTGTTGGA TAATGTGCAT TTCCACGCCC CTATGGAGTT TTTAATCAAT 360

7296

7297 AATAAAACCA GGCCTTTGAG CGCGCATTTT GTGCATAAAG ACGCTAAAGG GCGTTTGTTG 420

7298

7299 GTGTTAGCGA TTGGTTTTGA AGAAGGGAAA GAAAACCCCA ACCTTGATCC TATTTTAGAA 480

7300

7301 GGCATTCAAA AGAAACAAAA TCTTAAAGAG GTGGCTTTAG ACGCTTTCTT GCCTAAAAAGC 540

PTO had problems
reading your diskette.
There is some evidence
that there may have
been some bad
sectors on the
disk

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/487,032DATE: 02/23/96
TIME: 11:35:00

INPUT SET: S8924.raw

7302		
7303	ATCAATTACT ACCATTTTAA CGGCTCTCTC ACCGCTCCTC CTTGCACAGA GGGGGTGGCA	600
7304		
7305	TGGTTTGTCA TAGAAGAACC TTTGGAAGTT TCTGCCAAAC AATTGGCTGA AATCAAAAAA	660
7306		
7307	CGCATGAAAA ATTCGCCCAA CCAACGCCCC GTCCAGCCTG ACTACAACAC CGTGATCATT	720
7308		
7309	AAAAGCTCGG CTGAGACCCG C	741
7310		
7311		

--> 7312 (2) INFORMATION FOR SEQ ID NO:131:

jumps back to 131

7313	
7314	(i) SEQUENCE CHARACTERISTICS:
7315	(A) LENGTH: 1266 base pairs
7316	(B) TYPE: nucleic acid
7317	(C) STRANDEDNESS: double
7318	(D) TOPOLOGY: circular
7319	
7320	(ii) MOLECULE TYPE: DNA (genomic)
7321	
7322	(iii) HYPOTHETICAL: NO
7323	
7324	(iv) ANTI-SENSE: NO
7325	
7326	(vi) ORIGINAL SOURCE:
7327	(A) ORGANISM: Helicobacter pylori
7328	
7329	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:131:
7330	

7331	ATGAAAATTT CTTTATTGGG GCATGGAAAA ACCACTCTAG CCCTAGGGCG TTTTTTTAAA	60
7332		
7333	AAAAACCATA ATGAAGTCAA ATTTTTTGAT GATAAATTCC CTGCATTTTT TAAGGATAGC	120
7334		
7335	GAGGGTTTTT TTTGCTACCC TAGTAAGGAT TTTAACCTTA ATGATTCCCA ACTAGAAATC	180
7336		
7337	GTCAGCCCTG GCATTAGTTT CACGCACCCT TTAGTCATGA AAGCCAAGCA TTTAATGAGC	240
7338		
7339	GAATACGATT ATATTGATAG TTTGTTTGAT CATTCTTTCA CGCCTACGAT GATAAGTATT	300
7340		
7341	AGCGGCACTA ACGGGAAAAC CACCACGACC GAAATGCTCA CCACACTTTT AGAAGATTTT	360
7342		
7343	AAGGCTGTGA GTGGGGGGAA TATCGGCACG CCCTTGATTG AATTGTTTGA AAAACGATCG	420
7344		
7345	CCCTTGTTGG TGCTAGAAAC AAGCTCCTTT TCTTTGCATT AACTAATAA GGCTTACCC	480
7346		
7347	TTAATCTACT TGCTCATCAA TGTGGAAGCC GATCATTTGA CTTGGCATTG CAATTTTGAA	540
7348		
7349	AATTATTTGA ACGCTAAACT CAAGGTTTTA ACATTGATGC CTAAAACTTC GCTCGCTATC	600
7350		
7351	CTCCCTTTAA AATTCAAAGA ACACCTTATT GTTCAAACT CGCAAGCGCA AAAAATCTTT	660
7352		
7353	TTTGACAAAA GCGAAGAGGT TTTAGAGTGT TTAAAAATCC CTTCTAACGC CCTTTTTTTT	720

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/487,032DATE: 02/23/96
TIME: 11:35:04

INPUT SET: S8924.raw

7354		
7355	AAGGGAGCGT TTTTATTAGA CGCGGCTTTA GCCCTTTTAG TTTATGAGCA ATTTTAAAA	780
7356		
7357	ATAAAGAATT TAAAATGGCA AGATTATAGA GAAAACGCCC TTAAAAGACT GAACGCTTTT	840
7358		
7359	AAAATCGGCT CGCATAAAAAT GGAAGAATTT AGGGATAAAC AAGGGCGTTT GTGGGTAGAT	900
7360		
7361	GACAGCAAAG CCACGAATAT TGATGCCACC TTACAAGCCC TAAAAACCTT TAAAAACCAA	960
7362		
7363	AAAATCCATT TGATTTTAGG GGGCGATATT AAAGGGGTCA ATTTAACCCC CCTTTTGTAA	1020
7364		
7365	GAGTTTAAAA ACTATAAAAT AAGCCTTTAT GCCATAGGAT CAAGCGCTTC TATCATACAA	1080
7366		
7367	GCCTTAGCGT TAGAATTTAA TGTTTCTTGT CAGGTTTGTG TGAAGTTAGA AAAAGCGGTT	1140
7368		
7369	CAAGAAATTA AAAGCGTTTT ATTACAAAAT GAAGTCGCTT TGCTTTCACC TAGCGCGGCC	1200
7370		
7371	AGTTTGGATC AATTTTCTTC GTATAAAGAA AGGGGTGAAA AATTCAAAGC GTTTGTTTTA	1260
7372		
7373	AAAGAT	1266
7374		
7375		

8045 (2) INFORMATION FOR SEQ ID NO:149:
8046
8047 (i) SEQUENCE CHARACTERISTICS:
8048 (A) LENGTH: 1017 base pairs
8049 (B) TYPE: nucleic acid
8050 (C) STRANDEDNESS: double
8051 (D) TOPOLOGY: circular
8052
8053 (ii) MOLECULE TYPE: DNA (genomic)
8054
8055 (iii) HYPOTHETICAL: NO
8056
8057 (iv) ANTI-SENSE: NO
8058
8059 (vi) ORIGINAL SOURCE:
8060 (A) ORGANISM: Helicobacter pylori
8061
8062
8063

--> 8064 (xi) SEQUENCE DESCRIPTION: PHOSPHOMANNANASE:

8065		
8066	ATGATCACTG GCTCTCACAA CCCCAAAGAA TACAACGGCT TTAAAATCAC GCTCAATCAA	60
8067		
8068	AACCCGTTTT ATGGCAAGGA CATTCAGGCT TAAAAAACA CGCTTTTAAA CGCAAAGCAT	120
8069		
8070	GAAATAAAGC CCCTAAAAGA AACGCCAGAG AAAGTCAATG CCCTAGAAGC GTATCATCGC	180
8071		
8072	TATTTGATCA AGGATTTTAA GCATTTAAAA AATCTTAAAT ACAAATCGC CCTGGATTTT	240
8073		
8074	GGTAATGGCG TGGGGGCGTT AGGATTAGAG CCGATTTTAA AGGCTTTAAA CATTGATTTT	300

9
SEQ ID NO: 149

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/487,032DATE: 02/23/96
TIME: 11:35:08

INPUT SET: S8924.raw

8075
8076 AGCAGCCTTT ATAGCGATCC TGATGGGGAT TTTCCTAACC ACCACCCAGA CCCTAGCGAA 360
8077
8078 GCGAAAAACT TAAAAGACTT AGAAAAACAC ATGCGAGAAA ACGCTATTTT AATAGGCTTT 420
8079
8080 GCTTTTGATG GCGATGCGGA TAGGATTGCG ATGCTAAGCT CTCATCATAT CTATGCGGGC 480
8081
8082 GATGAATTAG CGATTTTATT CGCTAAACGC TTGCATGCTC AAGGCATCAC CCCTTTTGTTG 540
8083
8084 ATCGGCGAAG TCAAATGCTC TCAAGTGATG TATAACGCAA TCAATACTTT TGGTAAGACG 600
8085
8086 CTCATGTATA AAACCGGGCA TAGCAATTTA AAAATCAAGC TCAAAGAAAC TAATGCGCAT 660
8087
8088 TTTGCGGCTG AAATGAGCGG GCATATCTTT TTTAAAGAAC GCTATTTTGG CTATGATGAC 720
8089
8090 GCTCTTTACG CATGTTTAAG GGCTTTGGAG TTATTGCTTG AACAAAGTCC AAGCGACTTG 780
8091
8092 GAAACACCA TAAAAACCT CCCCTATTCC TACACCACGC CTGAAGAAAA AATCGCCGTG 840
8093
8094 AGCGAAGAAG AAAAATTTGA AATCATTCGC AACTTACAAG AAGCGCTTAA AAACCCGCCA 900
8095
8096 AGCCATTTCC CTACAATCAA AGAAATCATC AGCATTGATG GCGTGAGAGT GGTTTTTGAA 960
8097
8098 CATGGCTTTG GGCTTATTCG CGCAAGCAAC ACCCACCCC TATTTAGTCA GCCGCTT 1017
8099
8100

8615 (2) INFORMATION FOR SEQ ID NO:162:
8616
8617 (i) SEQUENCE CHARACTERISTICS:
--> 8618 (A) LENGTH: 753 base pairs
8619 E:
--> 8620 (A) ORGANISM: Helicobacter pylori
8621
8622 (ix) FEATURE:
8623 (A) NAME/KEY: misc_feature
8624 (B) LOCATION: 1...300
8625 (D) OTHER INFORMATION: /note= " UDP-N-ACETYLMURAMYL-TRYPEPTIDE
8626 SYNTHETASE"
8627
--> 8628 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:214:
8629
8630 ATGGGAGCGA TAGCGAGTTG TTACGCGCAT CAAATCATCT TAACTTCAGA CAATCCTAGA 60
8631
8632 AGCGAAAACG AAGAAGACAT CATTAAGGAT ATTTTAAAAG GCATCAATAA TTCTTCTAAA 120
8633
8634 GTCATTGTAG AAAAAGACCG AAAAAGGCC ATTTTAAACG CTTTAGAAAA TTAAAAGAC 180
8635
8636 GATGAGGTGT TGTTGATTTT AGGCAAGGGC GATGAAAACA TTCAAATCTT TAAAGACAAA 240
8637
8638 ACGATTTTTT TTAGCGACCA GGAAGTCGTT AAAGATTATT ATCTCAATTT AAAACAAGGA 300
8639
8640

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/487,032DATE: 02/23/96
TIME: 11:35:13

INPUT SET: S8924.raw

--> 8641 (2) INFORMATION FOR SEQ ID NO:215:
8642
8643 (i) SEQUENCE CHARACTERISTICS:
8644 (A) LENGTH: 240 base pairs
8645 (B) TYPE: nucleic acid
8646 (C) STRANDEDNESS: double
8647 (D) TOPOLOGY: circular
8648
8649 (ii) MOLECULE TYPE: DNA (genomic)
8650
8651 (iii) HYPOTHETICAL: NO
8652
8653 (iv) ANTI-SENSE: NO
8654
8655 (vi) ORIGINAL SOURCE:
8656 (A) ORGANISM: Helicobacter pylori
8657
8658 (ix) FEATURE:
8659 (A) NAME/KEY: misc feature
8660 (B) LOCATION: 1...240
8661 (D) OTHER INFORMATION: /note= "FLAGELLAR MOTOR SWITCH PROTEIN F"
8662
8663 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:215:
8664
8665 GTGATGGACA AACTCACTAA AAGCTTGCAA ACGCAAAAAA ACTTCGCTTA TTTAGGCAAA 60
8666
8667 ATCAAGCCCC AACAACTCGC TGATTTTCATC ATTAACGAAC ACCCTCAAAC CATCGCCTTG 120
8668
8669 ATTTTGGCCC ACATGGAARC CCCTAATGCG GCTGAAACTT TGAGCTATTT CCCTGATGAA 180
8670
8671 ATGAAAGCCG AGATTTCAT TAGAATGGCG AATTTTAGGC GAAATATCGC CCCAAGTGGT 240
8672
8673

8973 (2) INFORMATION FOR SEQ ID NO:224:
8974
8975 (i) SEQUENCE CHARACTERISTICS:
8976 (A) LENGTH: 1263 base pairs
8977 (B) TYPE: nucleic acid
8978 (C) STRANDEDNESS: double
8979 (D) TOPOLOGY: circular
8980
8981 (ii) MOLECULE TYPE: DNA (genomic)
8982
8983 (iii) HYPOTHETICAL: NO
8984
8985 (iv) ANTI-SENSE: NO
8986
8987 (vi) ORIGINAL SOURCE:
8988 (A) ORGANISM: Helicobacter pylori
8989
--> 8990 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:224:

(Handwritten circle around "SEQ ID NO:224" and a long arrow pointing from the "HYPOTHETICAL: NO" line to it)

○

RAW SEQUENCE LISTING PATENT APPLICATION US/08/487,032

DATE: 02/23/96
TIME: 11:35:17

INPUT SET: S8924.raw

8991									
8992	ATGAAAGGTT	TAACAATGAA	AAAATTAGTT	TTTAGCATGC	TTTATGTTG	TAAAAGCGTG		60	
8993									
8994	TTTGCAGAGG	GGGAAACTCC	TTTGATTGTC	AATGACCCAG	AAACCCATGT	AAGTCAAGCC		120	
8995									
8996	ACTATCATAG	GCAAAATGGT	AGATAGTATC	AAAAGATACG	AAGAGATTAT	TTCTAAGGCT		180	
8997									
8998	CAAGCTCAAG	TCAATCAGTT	ACAAAAAGTC	AATAACATGA	TAAATACGAC	TAATTCTTTG		240	
8999									
9000	ATTAGTAGTA	GTGCTATCAC	TTTAGCCAAT	CCTATGCAAG	TTTTACAAAA	CGCTCAGTAT		300	
9001									
9002	CAAATAGAGA	GCATTAGATA	CAACTATGAG	AATTTAAAGC	AAAGCATAGA	AAATTGGAAC		360	
9003									
9004	GCACAAAATT	TGTTAAGAAA	CAAATACTTA	CAGCAACAAT	GCCCTTGGCT	TAATGTCAAT		420	
9005									
9006	GCTCTTACTA	ACAATAAGAT	TGTCAATCTT	AAAGATCTCA	ATAACCTAAT	CACCAAAAAT		480	
9007									
9008	GGCGAACAAA	CCCAAACCGC	AAGAGATGTG	CAAAATCTCA	TTCAGTCCAT	TAGTGGCAGT		540	
9009									
9010	GGCTATGGAA	ACATGCAATC	ACTTGCTGGG	GAATTGAGTG	GTAGAGCGTG	GGGGGAAATG		600	
9011									
9012	TTGTGTAAAA	TGGTAAACGA	TAGTAATTAT	GAAAGCGAGC	AAGCTCTTTT	AGCAACAGGC		660	
9013									
9014	AATAACCCAG	AAGAGCAAAA	ACGAAGATTT	TTGCTTAGAG	TAAAGAAAAA	GGTTAATGAT		720	
9015									
9016	AATAAGCAGT	TAAAAGATAA	ACTTGACCCA	TTTCTAAAAA	GACTTGATGT	CCTACAAACT		780	
9017									
9018	GAGTTTGGTG	TAACTGACCC	TACAGCTAAC	CATAATAAGC	AAGGGATACA	TTATTGCACA		840	
9019									
9020	GAAAATAAAG	AGACAGGTAA	ATGCGACCCCT	ATTAAAAATG	TATTTAGGAC	AACTCGCTTA		900	
9021									
9022	GATAACGAAT	TAGAACAAGA	AATCCAAACG	CTCACACTTG	ATTTAATCAA	AGCCTCCAAT		960	
9023									
9024	AAAGACGCTC	AAAGCCAAGC	CTACGCAAAT	TTCAATCAAA	GGATTAAATT	ACTTACTCTA		1020	
9025									
9026	AAATATTTAA	AAGAAATTAC	CAATCAAATG	CTCTTTTTTAA	ATCAAACAAT	GGCAATGCAA		1080	
9027									
9028	AGCGAGATTA	TGACAGATGA	TTATTTTAGG	CAAAATAATG	ATGGCTTTGG	GGAAAAAGAA		1140	
9029									
9030	AACCATATAG	ACGAACAATT	AACGCAAAAA	AGAATAAACG	AAAGAGAAAAG	AGCTAGAATA		1200	
9031									
9032	TACTTTCAAA	ACCCTAATGT	TAAATTTGAC	CAATTTGGCT	TTCCCATTTT	TAGTATATGG		1260	
9033									
9034	GAT							1263	
9035									
9036									

9101 (2) INFORMATION FOR SEQ ID NO:227:

9102

9103 (i) SEQUENCE CHARACTERISTICS:

9104 (A) LENGTH: 2561 A

9105 %A8 D D A a ! "(A B d (F

--> 9106 ! P !P +h B0 8 a

disk couldn't
be read
after this
point.

PAGE: 9

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/487,032

DATE: 02/23/96
TIME: 11:35:21

INPUT SET: S8924.raw

--> 9107 4 D 0,!\$ D (Q! ("

08/487,032

Notice of Availability

Applicant Aid for Biotechnology Computer Readable Form (CRF) Sequence Listings Submissions

The Patent and Trademark Office (PTO) has developed a computer program, called Checker, that will aid applicants in identifying and correcting errors prior to making submissions for compliance with the Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures (sequence rules: 37 CFR 1.821 through 1.825). (Final rules were published in the *Federal Register* (55 FR 18230) on May 1, 1990, and in the *PTO Official Gazette* (1114 Off.Gaz.PatOffice 29) on May 15, 1990.)

Checker is a DOS-based software program that is intended to assist users in determining whether errors may be present in the sequence listings, and is not intended to guarantee that the submission is error-free.

The most current version of the software will be available via computer downloading (details below). Copies on diskette are also available. Updated software versions will not be automatically mailed out; any updates will be announced in the *PTO Official Gazette*.

The software can be accessed/requested in the following locations:

- 1) Dial-up access to the Patent and Trademark Office Bulletin Board System.
Phone number: 703-305-8950
Cost: Free-of-charge
- 2) Dial-up access through the Internet. FTP site: ftp.uspto.gov
Login as "anonymous". Software is in directory /pub/checker
Cost: Free-of-charge
- 3) For diskette copies, telephone requests to 703-308-0322.
Cost: \$25.00

For Further Information Contact: Meredith Beckhardt at 703-308-4212.

CRF Diskette Problem Report

The Scientific and Technical Information Center (STIC) experienced a problem when processing the following CRF diskette:

Application Serial Number: 08/487,032

Filing Date: 6/7/95

Classification: ?

Date Reviewed by STIC: 2/23/96

Point-of-Contact / Telephone No: Meredith Beckhardt
703-308-4212

Nature of Problem:



The CRF diskette was:



Damaged



Unreadable



Blank (no files present on the floppy disk)

— see attached. Only parts of the file could be read. —>



A computer virus was detected on the diskette. The STIC will not process the diskette through the Data Capture System.

Name of the virus: _____



The CRF diskette contains an error that disrupts normal processing, as explained below:



The Sequence Listing was not converted into ASCII (DOS) text



See attached pages for clarification --->



Other:
